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**Remarks:****I. Status of the Application:**

In the Office Action mailed April 20, 2006 (the "Office Action"), claims 1 – 22 and 39 – 53 were rejected under Section 103(a), in various combinations, as: (1) 5 unpatentable over Kovacs et al., U.S. Patent Application Publication No. 2001/0003191 ("Kovacs" or the "Kovacs reference") in view of Fishman et al. U.S. Patent No. 6,871,236 ("Fishman" or the "Fishman reference") (Office Action, points 2 through 12); and (2) unpatentable over Kovacs in view of Fishman and further in view of Jokinen et al. U.S. Patent Application Publication No. 2003/0026242 ("Jokinen" or the "Jokinen reference") (Office Action, points 13 through 22).

Applicants affirm the previous claim election of Group I (claims 1 – 22 and 39 – 53), without traverse, and by entry of the foregoing Amendment, have withdrawn claims 23 – 38 from further consideration in this application. A Revised Amendment has been submitted which includes the listing of the withdrawn claims.

15 Upon entry of this amendment, Applicants have amended claims 1 – 11, 19, 21, 39 – 43, and 46 – 49, and added new claims 54 – 67. Each of the previous independent claims 1 and 39 have been amended, and new independent claim 60 has been added, to more distinctly claim the subject matter of the invention and further to delineate the differences between the claimed invention, the cited prior art, and the prior art cited in 20 the related cases.

Claims 1 – 22, and 39 – 67 are pending in the application. Applicants respectfully traverse the rejection of claims 1 – 22 and 39 – 53 under Section 103. Applicants respectfully request reconsideration of the pending claims in view of the foregoing amendments and the following remarks.

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**II. New Claims 54 – 67 Are Supported in the Specification as Filed:**

New claims 54 – 59 depend from claim 1, and relate to different methods for changing the input and output data paths, such as through circuit switching or data packet routing. Support for these new claims may be found throughout the specification, 30 and more particularly at page 16, ll. 6 – 29; and page 14, ll. 20 – 25.

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New independent claim 60 combines different aspects of the other two independent claims 1 and 39, and the corresponding dependent claims 61 – 67 are based upon the other dependent claims originally filed or having the same support in the specification as cited above, concerning circuit switching and data packet routing.

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**III. The Rejection of Claims 1 – 22 and 39 – 53 under Section 103 Should Be Withdrawn:**

The present invention concerns devices for multimedia transmission and reception which, broadly speaking, utilize *configurable logic elements*. In this instance, 10 independent claims 1, 39 and 60 are specifically directed to (a) fixed and differing computational elements which (b) are configured by an interconnection network. More specifically, as amended, different input and output data connections of the computational elements are provided by the interconnection network to create different functional modes for the device, such as an acquisition mode (e.g., for channel acquisition and control 15 processing), and a traffic mode (e.g., for voice traffic, data traffic, control processing, etc.). In addition, the computational elements themselves are fixed (rather than being formed from lower-level gates, such as in an FPGA), and are differing, that is, the plurality of computational elements includes different types of computational elements, such as multipliers, adders, shifters, and so on. In addition, independent claims 39 and 60 20 also claim that control paths, for control information, are also configured through the interconnection network, while independent claims 1 and 39 also claim that the plurality of functional modes includes both acquisition and traffic modes.

It is respectfully submitted that none of the cited references discloses the claimed elements of (1) use of such an interconnection network to (2) configure input and 25 output data (and control) paths between and among (3) a plurality of fixed and differing computational elements to create (4) a plurality of media functional modes, such as the acquisition and traffic modes. These four claimed features of the present invention are not disclosed and are not suggested by the Kovacs, Fishman, and Jokinen references, alone or in combination with each other.

30 The Office Action admits (point 4) that the Kovacs reference does not disclose and does not suggest either an interconnection network or a plurality of fixed and differing computational elements (*i.e.*, heterogeneous computational elements). Rather,

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the reference in Kovacs to "heterogeneous" does not refer to configurable logic elements, but refers to different types of communication networks (Kovacs, paragraph 36).

Indeed, the Kovacs reference is not directed to any type of configurable logic, let alone the configurable logic of the present invention which can be 5 interconnected, in response to configuration information, for multiple communication modes. Instead, Kovacs is directed toward creating internetworking functionality among different types of devices, which may otherwise be incompatible with a given network. In Kovacs, then, different or variant protocol stacks are provided to users through an entry gateway server, and are downloaded as software. Kovacs does not address any hardware 10 configuration. More specifically, Kovacs utilizes "protocol mapping managers" to download a protocol stack and to route messages between the different protocol stack implementations, to provide inter-working among different protocols (Kovacs, paragraph 92).

As a consequence, the Kovacs reference does not disclose and does not 15 suggest any of the four claimed features of the present invention, namely (1) an interconnection network; (2) a plurality of fixed and differing computational elements; (3) configuration of input and output data (and control) paths among the computational elements; and (4) a plurality of media functional modes which can be implemented in the same hardware (*i.e.*, configured computational elements).

20 The Fishman reference concerns "content transformation", so that content may be customized for a selected device. The selected content is transformed at a mobile gateway, using a "content transform", with a transform identifier assigned to a mobile client, and then downloaded to the particular device. The transform identifier, with a content request, "allows the cache to return content that has been customized based on the 25 operating characteristics of the mobile client" (Fishman, col. 3, l. 65 – col. 4, l. 2).

While both the Kovacs and Fishman references involve information 30 downloadable from a (mobile) network, neither reference discloses or suggests a hardware "interconnection" network which can configure the input and output data paths of computational elements. The cited portion of Fishman (Office Action, point 4, citing Fishman Cols. 9 and 10), only discloses using transforms to customize control or configuration information for individual mobile clients, such as the unique identifiers to

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differentiate among all the mobile telephones, and does not pertain to any type of configuration information which would control an interconnection network to configure the input and output data paths of computational elements. The Fishman reference, then, also does not disclose and does not suggest any of the four claimed features of the present 5 invention discussed above. Simple, neither reference discloses or suggests anything concerning how to configure the physical, input-output connections among configurable logic elements to achieve different functional modes of a device, such as for channel acquisition or data transmission.

Lastly, the Jokinen reference also does not disclose and does not suggest 10 these claimed elements of the present invention. The Jokinen reference is confined to methods for identifying base stations in a TDMA cellular network and has nothing to do with adaptive or configurable hardware. More particularly, Jokinen does not disclose and does not suggest the claimed elements of (1) use of an interconnection network to (2) 15 configure input and output data (and control) paths between and among (3) a plurality of fixed and differing computational elements to create (4) a plurality of media functional modes, such as the acquisition and traffic modes.<sup>1</sup>

As a consequence, the Kovacs, Fishman, and Jokinen references, alone or 20 in combination with each other, do not disclose and do not suggest these claimed features of the present invention. In addition, there is no motivation to combine these references. The mere fact that the references could be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. *In re Mills*, 916 F.2d 680 (Fed. Cir. 1990). In addition, identification of any individual part claimed is insufficient to defeat patentability of the whole claimed

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<sup>1</sup> Two related, commonly-owned and co-invented applications are cited in the present application, now U.S. Patent No. 6,836,839, and U.S. Patent Application Serial No. 09/997,530. Those applications do not pertain to configuration for a plurality of media functional modes, such as the acquisition and traffic modes of the present invention. A considerable number of references have been cited by the USPTO and by applicants in these cases, including references from European examinations. Those references also include the references cited in yet a third related and commonly-owned application, now U.S. Patent No. 6,618,434. In the interests of brevity, the discussions of those references will not be repeated here, and may be found in the corresponding file histories of the related cases.

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invention. See *In re Kotzab*, 217 F.3d 1365 (Fed. Cir. 2000). Accordingly, no *prima facie* showing of potential anticipation or obviousness has been made, and any assertions to the contrary have been clearly rebutted. *In re Rouffet*, 149 F.3d 1350 (Fed. Cir. 1998); *In re Mills*, 916 F.2d 680 (Fed. Cir. 1990). The rejection of independent claims 1 and 39 5 as obvious under Section 103, therefore, should be withdrawn. In addition, for the same reasons, new independent claim 60 is also allowable over the cited references.

The present invention, therefore, is not rendered obvious by these references under Section 103, and the rejection of the pending claims should be withdrawn. In addition, because the remaining dependent claims incorporate by reference 10 all of the limitations of the corresponding independent claims, all of the dependent claims are also allowable over the cited references.

The Applicant respectfully submits that the present claims are in condition for allowance. On the basis of the above amendments and remarks, reconsideration and allowance of the application is believed to be warranted, and an early action toward that 15 end is respectfully solicited. In addition, for any issues or concerns, the Examiner is invited to call the attorney for the applicant at the telephone number provided below.

Respectfully submitted,

Paul L. Master et al.

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November 5, 2006

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By



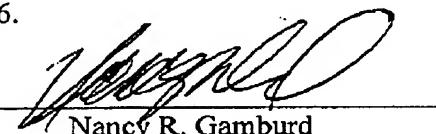
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**CERTIFICATE OF FACSIMILE TRANSMISSION**

I hereby certify that the foregoing Revised Amendment And Response (20  
5 pages), and Transmittal (PTO/SB/21) (1 page), (21 total pages), for Paul L. Master et al.,  
Serial No. 10/040,100, entitled "Apparatus and Method for Adaptive Multimedia  
Reception and Transmission in Communication Environments", have been transmitted by  
facsimile to the US Patent and Trademark Office to fax number (571) 273-8300  
(Centralized Facsimile Number), on November 5, 2006.

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